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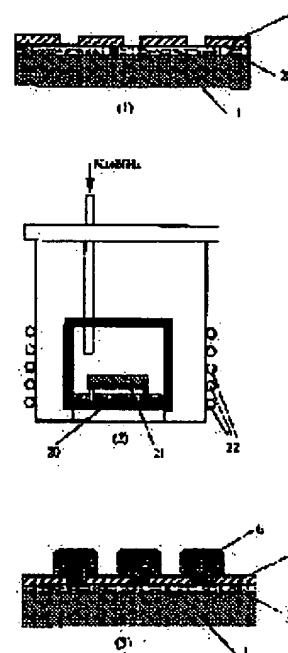
(21)Application number : 09-074002 (71)Applicant : SAKAI SHIRO
SHARP CORP
(22)Date of filing : 26.03.1997 (72)Inventor : SAKAI SHIRO
OMI SUSUMU

(54) PRODUCTION OF GALLIUM NITRIDE BULK SINGLE CRYSTAL

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a process for producing a GaN single crystal which simultaneously includes the controllability and crystallinity of a good growth position and the uniformity of sizes and shaped which are adequate as a substrate for mass production of GaN based semiconductor light emitting elements exhibiting blue emitted light with high efficiency.

SOLUTION: After an SiO₂ film 3 or SiNx film is formed on the substrate 1, the SiO₂ film 3 or SiNx film at the positions desired to be formed with the GaN bulk single crystals 6 is removed and a metal gallium or its compd. is sublimated and recrystallized at a high temp. in an ammonia atmosphere on this substrate, by which the GaN bulk single crystals 6 are selectively grown only on the desired positions on the substrate 21.



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